ASPO-Australia

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Submission to the Senate Inquiry into Australia's future oil supply and alternative transport fuels.

Executive Summary

As oil supplies decline, an increase in international tension and conflict over dwindling resources can be expected. Fuel poverty, particularly in developing countries and island nations, would be likely to increase internal unrest and resource related crime. A severe oil shortage in Australia is likely to cause similar problems domestically and could require military assistance for domestic emergency management and security.

Defence currently accounts for 48 per cent of the Commonwealth Government's total energy consumption. Rapidly increasing costs of fuel will have a significant impact on Defence and Border Security budgets and capabilities, this will require either additional funding to offset the increased operating costs, or a reduction in the utilisation of these assets or other services to remain within budget.

Oil and energy supplies security will increasingly influence the regional and global security environment and shape the future direction and structure of Defence Forces and Border Security Agencies worldwide in the years ahead.

Background

"The scarcity of energy supplies and the energy imbalance between nations is a threat to our prosperity and national security. As resources contract, oil-hungry economies will compete for dwindling supplies of hydrocarbons. Competition for fossil fuels will increase.... Energy resources have long been a major strategic concern: access to secure sources, control over supply lines: these are issues of national security.... The energy challenge is now more pressing than ever.... Global oil production is apparently nearing its peak.... current estimates seem to be converging on some point between 2010 and 2020.... [there] are five factors which are changing the energy landscape: rising demand; dwindling supply; greater concentration of resource in the hands of a few; limited spare capacity; and the environmental impacts of energy use.....This is not a problem that can wait ten years."
Sir David Manning, British Ambassador to the United States of America
Speech at Stanford University, 13 March 2006

"... the supply-demand fundamentals seem consistent with the view now taken by market participants that the days of persistently cheap oil and natural gas are likely behind us."
Ben Bernake, Chairman of the US Federal Reserve
Economic Club of Chicago, 15 June 2006

"Former U.S. president Bill Clinton has urged newspaper editors to focus more attention on the depletion of the world's oil reserves. In a June 17 speech to the Association of Alternative Newsweeklies convention in Little Rock, Arkansas, Clinton said a 'significant number of

petroleum geologists' have warned that the world could be nearing the peak in oil production."
Clinton raises alarm about oil depletion
Georgia Straight (Canada), 22 June 2006

"We have entered the post-oil era. I want to draw all the consequences of this…."
Dominique de Villepin, French Prime Minister France
Reuters, 1 September 2005

"My view is that 'easy' oil has probably passed its peak."
Jeroen van der Veer, CEO of Royal Dutch Shell
Financial Times, 24 January 2006

"We almost certainly are at or near what they call peak oil..."
Al Gore, former US Vice President
CNN, 14 June 2006

"The world lacks the means to produce enough oil to meet rising projections of demand for fuel over the next decade, according to Christophe de Margerie, head of exploration for Total and heir presumptive to the leadership of the French energy multinational. The world is mistakenly focusing on oil reserves when the problem is capacity to produce oil, M de Margerie said in an interview with The Times. Forecasters, such as the International Energy Agency (IEA), have failed to consider the speed at which new resources can be brought into production, he believes. 'Numbers like 120 million barrels per day will never be reached, never,' he said."
World 'cannot meet oil demand'
London Times, 8 April 2006

Situation

The economy, particularly the transportation component, has become heavily dependent on oil. Concurrent with rising demand are indications that world production may soon peak, followed by permanent decline and shortage. In addition to the above statements, numerous individuals, scientists, geologists, organisations and governments are acknowledging the near term decline in global oil supplies. Aside from the impact to the economy and general population's way of life, the decline in global oil supplies will have profound consequences for the Australian Defence Force (ADF) and civil border protection agencies. Australia has recently embarked on several large military and civil national security projects involving the acquisition of aircraft, vessels, and land transport. These decisions and force structure are underpinned on a continued supply of cheap oil. The July 2006 issue of the Australian "Defence" magazine stated that "Defence currently accounts for 48 per cent of the Commonwealth Government's total energy consumption"[1]. Rapidly increasing costs of fuel will have a significant impact on budgets and capabilities, which will require either additional funding to cover significant increased operating costs, or a reduction in the utilisation of these assets or other services to remain within budget.

If in the future a reduction in the use of the assets occurs to minimise impact to the budget, this will likely degrade war-fighting readiness and capability. Similarly, having to regularly request additional funding to cover increased costs when it is already known that the overall long term trend is one of rising costs, demonstrates a lack of foresight and planning. The cost of fuel and lubricants purchased by Defence in 2000-01 was $223.2 million.[2] This is 1.18% of the total

[1] http://www.defence.gov.au/defencemagazine/editions/200607/groups/dsg2.htm
[2] http://www.biodiversity.ea.gov.au/about/publications/annual-report/01-02/external.html

Defence funding in the 2000 – 2001 budget.[3] The Royal Australian Airforce (RAAF) used 53%, NAVY 41% and ARMY 13%. In 2001 the price of a barrel of oil was approx $30, in 2006 it is now over $70 barrel.

At a recent Senate hearing in Sydney, projected prices of oil were $100 - $150/barrel in the near future and $200 – 300/barrel by 2020[4]. It is unclear in recent Defence Annual reports how the increasing price of fuel is affecting ADF operations and how this is being managed, however the rises in the cost of fuel and almost every other commodity that is oil based, will create serious dilemmas for both the ADF and border security agencies.

A recent fuel tax enquiry outlined a study by the Royal Institute of International Affairs; this study canvassed the issue of long-term oil supply. The study found that "since 1980, world oil discoveries have been outstripped by world production" [5]. It notes that there is debate as to the longevity of world conventional oil production; though forecasts of peak production vary from as soon as 2010 to as far off as 2030. The International Energy Agency (IEA[6]) expects conventional oil production to peak between 2010 and 2020". A growing consensus is now putting the peak as occurring at present or no later than 2010-2012.

The Australian National Audit Office (ANAO) report in 2002 examined the Australian Department of Defence Fuel Management. The report states that "fuel is a critical component of military capability as it is an essential consumable for the mobility of the Australian Defence Force (ADF). The procurement, storage and distribution of fuel by the ADF represent a complex range of activities in a number of Defence sub-programs and are conducted at geographically dispersed locations. The ADF uses eight different types of fuel, four of which are military specification fuels. Military specification fuels include additives that the ADF considers essential for the operation of its ships, aircraft and vehicles, in a range of demanding environments. Factors underlying the military specific requirements include the wide range of climates where the ADF may be required to operate, the need for longer-term fuel storage and safety requirements in combat situations. Over 750 different oils and lubricants are used by the ADF. The Defence fuel and lubricants supply chain is complex and involves a wide range of processes and control structures. The strategic management of this supply chain is fragmented and insufficiently coordinated" [7].

The ANAO also found that Defence does not have a "fuel procurement price risk management policy" and that more needs to be done to effectively "identify, analyse and manage these risks".

Implications

The dilemma for policy development will be how to maintain our national security and border protection in the years ahead as energy costs rise significantly and so to the threats Australia faces.

A recent analysis[8] for the US Department of Energy focused on what might be done to mitigate the peaking of world oil production. The report states that "The peaking of world oil production presents the U.S. and the world with an unprecedented risk management problem. As peaking is

[3] http://www.defence.gov.au/budget/00-01/dar/01.pdf
[4] Senate Hansard, Australia's future oil supply and alternative transport fuels, Sydney, 11 July 2006
[5] http://fueltaxinquiry.treasury.gov.au/content/issues/issues-03.asp
[6] http://www.iea.org/textbase/press/pressdetail.asp?PRESS_REL_ID=163
[7] http://www.anao.gov.au/WebSite.nsf/Publications/4a256ae90015f69bca256ba3007e13e9!OpenDocument&Click=
[8] http://en.wikipedia.org/wiki/Hirsch_report

approached, liquid fuel prices and price volatility will increase dramatically, and, without timely mitigation, the economic, social, and political costs will be unprecedented". Effective mitigation will be dependent on the implementation of mega-projects and mega-changes at the maximum possible rate. The author recently stated that "Confronting peak oil will cost industrialized nations dearly", and, "that crash-program initiatives on these fronts are going to be enormously expensive, requiring an investment of more than $20 trillion over 20 years, and still yield marginal only increases in liquid fuels"[9].

In issue thirty-nine of the Joint Forces Quarterly, the third place essay in "The Chairman's Strategic Essay Winner" was an article entitled "America's Strategic Imperative, A "Manhattan Project" for Energy. This essay stated that "the current world energy situation poses a national threat unparalleled in 225 years. The economy, particularly the transportation component, has become heavily dependent on foreign oil. Concurrent with rising demand are indications that world production may soon peak, followed by permanent decline and shortage. Moreover, most of the remaining oil is concentrated in distant, politically hostile locations, inviting interdiction by enemies…….…rising world demand and falling production could place the United States in direct military competition with equally determined nations. It is doubtful that any military, even that of a global hegemon, could secure an oil lifeline indefinitely. Failing to take urgent economic steps now will necessitate more painful economic steps later and likely require protracted military action"[10].

A US Army Corps of Engineers Report examining Energy Trends and Implications for US Army Installations states "World oil production is at or near its peak and current world demand exceeds the supply" and that "The supply of oil will remain fairly stable in the very near term, but oil prices will steadily increase as world production approaches its peak. The doubling of oil prices in the past couple of years is not an anomaly, but a picture of the future. Peak oil is at hand with low availability growth for the next 5 to 10 years. Energy consumption is indispensable to our standard of living, and necessary for the Army to carry out its mission. However, current trends are not sustainable. The impact of excessive, unsustainable energy consumption may undermine the very culture and activities it supports. There is no perfect energy source; all are used at a cost. Once worldwide petroleum production peaks, geopolitics and market economics will result in even more significant price increases and security risks. To guess where this is all going to take us is would be too speculative. Oil wars are certainly not out of the question. Disruption of world oil markets may also affect world natural gas markets as much of the natural gas reserves are collocated with the oil reserves". The report concludes that "We must act now to develop the technology and infrastructure necessary to transition to other energy sources and energy efficient technologies. Policy changes, leap-ahead technology breakthroughs, cultural changes, and significant investment is requisite for this new energy future. Time is essential to enact these changes. The process should begin now"[11].

In the coming years, resource wars are possible, Australia may readily find itself in direct military competition with equally determined nations given our significant reserves of gas, coal and uranium. To date the issue of energy security has raised barely a ripple within Australia's national security environment. Our current transition to an expeditionary force structure may have long-term security implications for Australia given that the decision to move towards a more fluid structure has been made without any fundamental understanding of how the energy environment will change over the next few years. How will we maintain our national and border security in the

[9] http://www.oilposter.org/blog/2006/07/aspo-5-day-1-robert-hirsch-says.html
[10] http://www.dtic.mil/doctrine/jel/jfg_pubs/1339.pdf
[11] http://www.peakoil.net/Articles2005/Westervelt_EnergyTrends__TN.pdf

troubled times ahead when we have already have had significant border security issues over the previous years in a period of relative stability?

Recently in Washington, DC, U.S. House of Representatives members Steve Israel and Roscoe Bartlett announced the formation of the Defence Energy Working Group alongside former CIA Director R. James Woolsey. The Defence Energy Working Group, founded on the premise that the military's dependence on energy is a national security vulnerability, will be a bipartisan study group of House members that will identify challenges associated with this dependence and recommend logistical and policy solutions.

"Oil prices have increased from under $30/barrel in 2003 to almost $80/barrel this past week," said Bartlett. "Nearly half of the Defence Department's energy spending is for jet fuel for the Air Force. Every $10 per barrel increase adds $600 million to the Air Force's annual operating costs. In the past three years, that amounts to $2 billion, much of which has flowed into the treasuries of foreign oil suppliers. The military's dependence upon oil underscores that energy poses a generational threat to America's national security."

"As a Democrat and a Republican on the House Armed Services Committee, we disagree on many things, but we do agree that energy is a major national security issue," said Israel. "The fact is that nearly every military challenge we face is either derived from or impacted by one thing: our reliance on fossil fuels and foreign energy sources. In a world where we borrow money from China to purchase oil from unstable Persian Gulf countries to fuel our Air Force planes that protect us against potential threats from these very countries, it's high-time to make the choices and investments necessary to protect our country."

"There's a crucial relationship between the country's national security and energy policy. The way we employ energy in military operations and in our daily lives and the link to national security is the most important issue our country faces," said former CIA Director R. James Woolsey who is currently Chair of the Pentagon's Policy Panel of the Defence Science Board Task Force on Department of Defence Energy Strategy. "Attention to this issue in Congress is urgently required.[12]"

Conclusion

“The challenge of global energy security is complex and truly multi-dimensional. It goes to the core of national interests. There is no quick and lasting fix”[13]. Oil and energy supplies security will increasingly influence the global security environment and shape the future direction and structure of the Australian Defence Force and Border Security Agencies in the years ahead.

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[12] http://www.energybulletin.net/18435.html
[13] Ambassador Walther, Secretary General International Energy Forum (IEF), G-8 Energy Ministers 16 March 2006.